



Aalborg Universitet

AALBORG UNIVERSITY
DENMARK

How 'Social' are Social News Sites? Exploring the Motivations for Using Reddit.com

Bogers, Toine; Nordenhoff Wernersen, Rasmus

Published in:
Proceedings of the iConference 2014

Publication date:
2014

Document Version
Publisher's PDF, also known as Version of record

[Link to publication from Aalborg University](#)

Citation for published version (APA):
Bogers, T., & Nordenhoff Wernersen, R. (2014). How 'Social' are Social News Sites? Exploring the Motivations for Using Reddit.com. In *Proceedings of the iConference 2014* (pp. 329-344). iSchools.
<https://www.ideals.illinois.edu/handle/2142/47295>

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal -

Take down policy

If you believe that this document breaches copyright please contact us at vbn@aub.aau.dk providing details, and we will remove access to the work immediately and investigate your claim.

How ‘Social’ are Social News Sites? Exploring the Motivations for Using Reddit.com

Toine Bogers^{1,2} and Rasmus Wernersen³

¹Department of Communication & Psychology, Aalborg University Copenhagen, Copenhagen, Denmark

²Royal School of Library & Information Science, University of Copenhagen, Copenhagen, Denmark

³The Administrative Library, Copenhagen, Denmark

Abstract

Social news sites allow their users to submit and vote on online news stories, thereby bypassing the authority and power of traditional newspaper editors. In this paper we explore what motivates users of social news sites, such as Reddit, to participate in this collaborative editorial process. We present a tiered framework of motivational factors for participating on social news sites, based on a comprehensive literature review, drawn from fields like social media research, sociology, (social) psychology, and behavioral economics. We then validate this framework through a survey deployed on Reddit and use the results of this survey to focus the motivational framework for the social news domain. the recreational value of the information posted to Reddit, along with the powerful possibilities for customization appear to be the most powerful incentives for using Reddit. Perhaps surprisingly, the social aspect of social news sites is not a motivating factor for the majority of Reddit users. Influencing the placement and reception of news stories in their niche communities of interest is what draws people to sites such as Reddit.

Keywords: social news; motivation; social media; Reddit; user participation

Citation: Editor will add citation.

Copyright: Copyright is held by the authors.

Contact: toine@hum.aau.dk.

1 Introduction

Over the past two decades, online news websites have taken slow but steady strides towards increasing user involvement through commenting on news articles and easy article sharing on social networking sites like Facebook and Twitter. However, the final decision of which articles get the greatest exposure through placement at the top of the digital front page still rests solely with the news website’s editors. *Social news sites* do away with this last remnant of expert-based control by allowing the users themselves to vote on which stories deserve the greatest exposure, and even submit stories to these websites.

But what *motivates* users of social news sites like Reddit and Digg to participate in these activities? Is it the social aspect of connecting with friends and like-minded users that motivates users to participate on social news sites? Or is it perhaps the shared power to vote on which stories should make it to the front page that is attractive to users?

So far, there have been only a handful of approaches that have examined the motivations of users of social news sites. Lerman (2007) tracked the behavior of the top 1000 most active users on Digg over the course of a year, and found that competition for the top spot on the ‘Top 1000 users’ list was not as powerful a motivator as social recognition, and positive recognition in particular. However, Lerman only examined interaction patterns and did not ask Digg users directly what motivated them to participate. Halavais (2009), looking specifically at commenting patterns on Digg, also found that positive feedback in the form of comments and positive moderation votes motivate users to keep participating.

Other incentives for user participation have been studied for other types of online communities, such as Wikipedia, newsgroups, open-source collaborations, and micro-blogging (see Section 2 for a comprehensive overview). To the best of our knowledge, however, no comprehensive framework of motivations for participation on social news sites has been created or investigated.

In this paper, we present such a framework of motivational factors for social news sites. As opposed to Lerman (2007) and Halavais (2009), who analyzed user behavior on Digg to focus only on two specific motivational factors, we cast a wider net for possible participation incentives and examine their importance empirically through a survey of 282 Reddit users. Our contributions in this paper are threefold:

- A comprehensive literature review of the motivations for online user participation, drawn from fields like social media research, sociology, (social) psychology, and behavioral economics.
- The organization of these motivational factors into a coherent framework for social media use.
- An empirical validation of this motivational framework through a survey deployed on Reddit, the largest social news site at the time of writing¹.

The remainder of this paper is organized as follows. The next section contains a review of the related work on motivational factors for participating in social media. Section 3 describes our methodology, while Section 4 describes the motivational framework we derived based on our analysis of the related work. Section 5 presents the results of the empirical validation of this framework. We conclude in Section 6.

2 Related work

We present a broad overview of related work on incentives for online user participation in this section. There are different ways of grouping together related work on incentives for participation. For instance, Rafaeli & Ariel (2008) organize their overview of the different possible motivations for contributing to wikis by the scientific discipline they originated from. Kaplan and Haenlein (2010) categorize social media by the degree of social presence as well as the amount of self-presentation. We have elected to group related work together by domains instead: social news sites, mailing lists and newsgroups, online communities, and online collaboration initiatives, such as Wikipedia and open-source projects. This overview of motivational factors will then be condensed and organized into a coherent framework of user motivations in Section 4.

2.1 Social news sites

In recent years, there have been only a handful of approaches that have examined (a subset of) motivations of users of social news sites. Lerman (2007) analyzed user behavior on Digg and found that competition (in the form of "Top 1000 users' lists) is not as powerful a motivator as social recognition. Positive recognition was found to motivate users to stay active or become more active, whereas negative recognition could have negative effects on community longevity². Studying the spread of interest in news stories on Digg, Lerman *et al.* (2008, 2012) found that stories that spread mainly outside a submitter's local community of friends are much more likely to become popular on Digg. This suggests that one's reputation is not tied to one's friendships on a social news site, which means these motivational factors are not necessarily related.

Halavais (2009) looked at commenting patterns on Digg and found that getting feedback is an important motivator: users are more likely to keep commenting if they receive positive moderation votes and comments on their own comments. Sadlon *et al.* (2009) view Digg story submissions and promotion as an ecology and found that reciprocity is an important factor in user behavior, and a good predictor for which stories get promoted.

2.2 Social media

Most other research has focused on the motivations for using social media in general. For instance, Brandtzæg and Heim (2009) investigated the motivations for using Norway-centered social networking sites. They found that the most important reasons for using such sites was to get in contact with new people, staying in touch with existing friends, and general socializing. Other motivations that emerged from their survey were accessing information and staying informed about events, debating and discussing topics with others, and procrastination and entertainment.

Brandtzæg and Heim (2007) also looked at the other side of the coin: what motivates people to *withdraw* from social media websites? Common reasons for withdrawing from social media included a lack of friends or interesting people attending, low quality content, low usability, and a lack of entertainment value in general.

Kietzmann *et al.* (2011) present a framework for defining social media by using seven functional building blocks: identity, conversations, sharing, presence, relationships, reputation, and groups. Some motivational factors they mention are meeting new like-minded people and incentives related to personal growth, such as building self-esteem, learning about new topics, sharing information, and making a positive ideological impact.

¹According to <http://mashable.com/2011/04/28/reddit-digg-traffic/>, last accessed February 21, 2013.

²We will use the terms 'group' and 'community' interchangeably in this paper.

2.3 Newsgroups & mailing lists

Joyce and Kraut (2006) analyzed posting behavior of newcomers on newsgroups and found that positive recognition in the form of comments and responses to newcomers' initial posts motivated them to stay active in those newsgroups. The quality of the comments and information was not found to have an effect on their posting behavior.

Arguello et al. (2006) analyzed posting behavior in newsgroups in general and found that the information context, the poster's prior engagement in the community, and the post content all influenced the response rate. Their study suggests that people are motivated to continue posting in newsgroups and mailing lists if the activity and response levels in a community are high. In addition, friendship relations with other users and the right amount of stories posted serve as incentives to continue participating in these communities.

2.4 Online communities

Ridings et al. (2002) looked at the effects of trust on virtual communities and found that it can be a powerful incentive for users when sharing information in the virtual community. In their 2004 article, Ridings & Gefen also investigated the reasons for participating in virtual communities (Ridings & Gefen, 2004). While motivations varied strongly depending on the type of virtual community, information exchange was the most popular reason across community types. Other important motivations were friendship, recreation and entertainment, as well as the technical functionality of the community website. Lampel and Bhalla (2007) found that the desire to be recognized and achieve status is particularly important to understanding the motivations of those who contribute to virtual communities. Brown and Capozza (2006) discuss group identity and its influence on people's social identities and self-evaluation. Their work suggests that strengthening inter-group ties—for instance through joining online communities with a strong presence of existing friends—can be a strong incentive for joining new and existing communities.

Oliver and Marwell (1998) looked at the effect of group size on collective action and found that group size as well as the costs of collective goods have an effect on the amount of collective action undertaken by the group. Milgram et al. (1969) examined the effects of group sizes in an offline setting by investigating the drawing power of different-sized crowds. They found that the size of a crowd has an influence on the behavior of individuals outside that group, with larger crowds making it more likely for outside individuals to exhibit the same behavior. This suggests that group size could also be an incentive for participating in group activities on social media.

Altruism can be another motivation to contribute to online communities according to Ren and Kraut (in press), although this is less likely if the community is large or if people believe other community members are already contributing. Identification with the group as a whole (social belonging) and interpersonal bonds with individual members (friendship) can also motivate people to participate for a longer period of time (Sassenberg, 2002). Repeated interactions make such interpersonal bonds stronger and more likely to occur. Reputation is another factor that motivates people to participate in online communities as well as the enjoyment they derive from reading and posting online (Ridings & Gefen, 2004).

2.5 Online collaboration

Much of the work done through online collaboration is on a volunteer basis. Clary et al. (1998) divided the motivations for volunteering into six categories. One of their categories, 'enhancement', addresses the need for recognition, personal growth, and self-esteem. Moderators on Reddit may be motivated to do their work for similar reasons.

Nov (2007) looked specifically at the motivations for contributing to Wikipedia. He found that these motivation range from the joy of writing to motivations related to personal growth, such as the opportunity to learn new things and the desire to contribute to knowledge in the global society. Nov created a survey with questions corresponding to Clary's six categories (Clary et al., 1998), and correlated these with contribution levels of Wikipedians. The motivations they looked at were *protective*, *values*, *career*, *social*, *understanding*, *enhancement*, *fun*, and *ideology*. He found that the joy of writing (fun), learning about new things (enhancement), and alleviating loneliness (protective) showed the strongest significant correlations with contribution levels. Rafaeli and Ariel (2008) present a comprehensive overview of the different possible motivations for contributing to wikis, as organized by scientific disciplines. Common factors that originate from many different disciplines are the desire for personal growth, reciprocity and reputation. A sense of community and commitment to it and the

prestige of the community as a whole are also important, as well as socializing using communicative facilities. Other powerful incentives are people's intrinsic desire for pleasure, entertainment, and aesthetics, as well as the perceived informational value of the wiki. This also suggests that both the information quality and quantity could be important to users of social news sites.

2.6 Miscellaneous

The related work below does not belong to a single unified domain, but provide additional possibilities for why people are motivated to participate on social news sites and social media in general. One of the seminal works on human needs is Maslow's hierarchy of needs that drive human activity (Maslow, 1954). This hierarchy could also provide suggestions for what drives user activity on social news sites. While the bottom levels of *physiological* and *safety needs* are less likely to be relevant for participating in social news sites, the needs for *love and belonging*, *esteem* (self-esteem, achievement, and recognition of and by others), *self-actualization* could be relevant incentives for participation here.

Fogg et al. (2003) examined the factors that affect the credibility of websites. They found that the design and usability of a website was one of the most important factors influencing the credibility. This suggests that this could also be an important incentive for using social news sites. In their work on e-commerce paradigms, Hoffman and Novak (1997) argue that the World Wide Web has become a prime source of information for satisfaction transactional information needs. This could be one of many possible motivations for using Reddit: finding out more about new or existing products. We expect this motivation to play only a minor role though, if any. Su et al. (2011) looked at the motivations for purchasing direct-to-consumer genetic testing. While this is different from social news sites in many ways, some motivational factors are likely to be shared, such as curiosity and fascination, as well as recreational and ideological reasons, such as contributing to research.

Jakobsson (2011) looked at achievement systems for console gaming, which are often considered as extrinsic rewards for playing games. Intrinsic motivations, such as interest and enjoyment of the games themselves, are the other side of the coin. Jakobsson also argues that achievement systems play on our desire for a good reputation to keep drawing people into games. However, at its extreme it can also turn participation into a chore. The equivalent could hold for posting on social news sites.

3 Methodology

In the previous section, we reviewed a broad range of related work on incentives for user participation in social news sites as well as other domains, such as online communities, newsgroups, and online collaboration. Section 3.1 describes how we combined these different factors into a coherent framework. Section 3.2 describes how we validated this framework using an online survey deployed on Reddit.

3.1 Motivational framework

After reviewing the related work for possible incentives for user participation in social news sites mentioned in Section 2, we collected a set of 55 snippets and quotes related to different motivational factors. Both authors then collectively used card sorting (Weller & Romney, 1988) to group related snippets together into 26 individual motivational factors. These 26 factors were then grouped together again at a higher level, until we ended up with seven different mid-level categories. Finally, we combined these seven mid-level categories into four top-level categories: **Personal (P)**, **Social (S)**, **Informational (I)**, and **Website characteristics (W)**³. Section 4 describes the different levels of our motivational framework.

3.2 Survey

To validate our motivational framework, we developed a survey with questions corresponding to each of the 26 motivational factors. We deployed this survey on Reddit, because it was the largest and most popular social news site at the time of conducting this research. Reddit attracted over 3.4 billion page views in August 2012⁴, and

³Individual factors will be labeled as **X.y**, where **X** is the top-level category and **y** is the number of the individual factor under category. For instance, **P.1** would be the first **Personal** factor.

⁴According to <http://mashable.com/2012/09/06/reddit-pageviews-august/>, last accessed April 13, 2013.

according to Alexa, Reddit pulled in 14 times more visitors in the first quarter of 2013 than Digg, another popular social news site⁵. However, according to a recent report by Duggan and Smith (2013), this still only corresponds to about 6% of all Internet users.

Survey development

Our survey consisted of six different parts⁶. Part one contained questions about the participant's use of Reddit: whether they have a user profile on Reddit and how often they use different functionality on Reddit, such as posting, commenting, and voting. The next four parts corresponded to our four top-level categories **Personal**, **Social**, **Informational**, and **Website characteristics**, with one question corresponding to the 26 motivational factors grouped under these four categories. An open comment field was included at the end of each part. The sixth and final part of the survey focused on demographics (e.g., gender, age, country of origin) to compare our sample characteristics to those described in earlier work. In addition, we asked participants for their Reddit user name and permission to crawl and analyze their user profile for further analysis.

Deploying the survey on Reddit

To enable the greatest exposure to Reddit users, we decided that the best place to deploy the survey would be on Reddit itself. There are two options for deploying a survey on Reddit: displaying it as an advertising banner, or posting it in one or more of the many subreddits on Reddit. A *subreddit* is a sub-forum on Reddit, focused on a particular topics, such as **Politics**, **Science**, and **Gaming**. Subreddits can be private or public and are run by moderators who decide whether or not posts to the subreddit are on-topic. This also means that cross-posting the survey to the largest subreddits would be a futile exercise, as it would be removed very quickly. We therefore selected the following five on-topic subreddits to post the survey in:

- **Assistance** allows its members to any kind of requests for assistance from Reddit users.
- **Favors** allows its members to make small non-monetary requests and offers of assistance between Reddit users.
- **SampleSize** is a subreddit dedicated to surveys produced for and by Reddit users.
- **Self** is a subreddit for discussions and questions about any kind of topic.
- **SocialMedia** is dedicated to listing resources for learning better to utilize and enjoy social media sites.

Together, these five subreddits have a little under 120,000 subscribers. However, the average number of registered Reddit users online was around 1,000 at any given time when the survey was active. Due to the dynamic nature of Reddit's voting system, our survey was not likely to stay at the top of these subreddits (i.e., the top 20 most popular posts) for a long time without consistent up-voting by the subreddits' subscribers. Indeed, our survey remained at the the top for about 14 days, with 97% of respondents answering within 5 days. In total, we received 282 valid responses to our survey, the results of which will be analyzed in Section 5.

4 A Framework of Motivational Factors for Social Media Usage

Figure 1 shows the full framework of 26 motivational factors, organized into mid-level and top-level categories. The following four sections describe our four top-level categories in greater detail. Each of the 26 individual factors are explained here, organized by mid-level category. For each motivational factor, we list the references (discussed in Section 2) that they originated from.

4.1 Personal

4.1.1 Self-promotion & Reputation

Self-promotion (P.1) represents the desire of a user to promote their own work, viewpoints, or interests (Brandtzaeg & Heim, 2009). Self-promotion can be both positive (by writing insightful or intelligent comments) and negative (by posting inflammatory messages meant to provoke an emotional response in other users, also known as *trolling*).

⁵According to <http://www.alexa.com/siteinfo/reddit.com>, last accessed April 13, 2013.

⁶We have made our survey questions available online at <http://anon.ymiz.ed/url>.

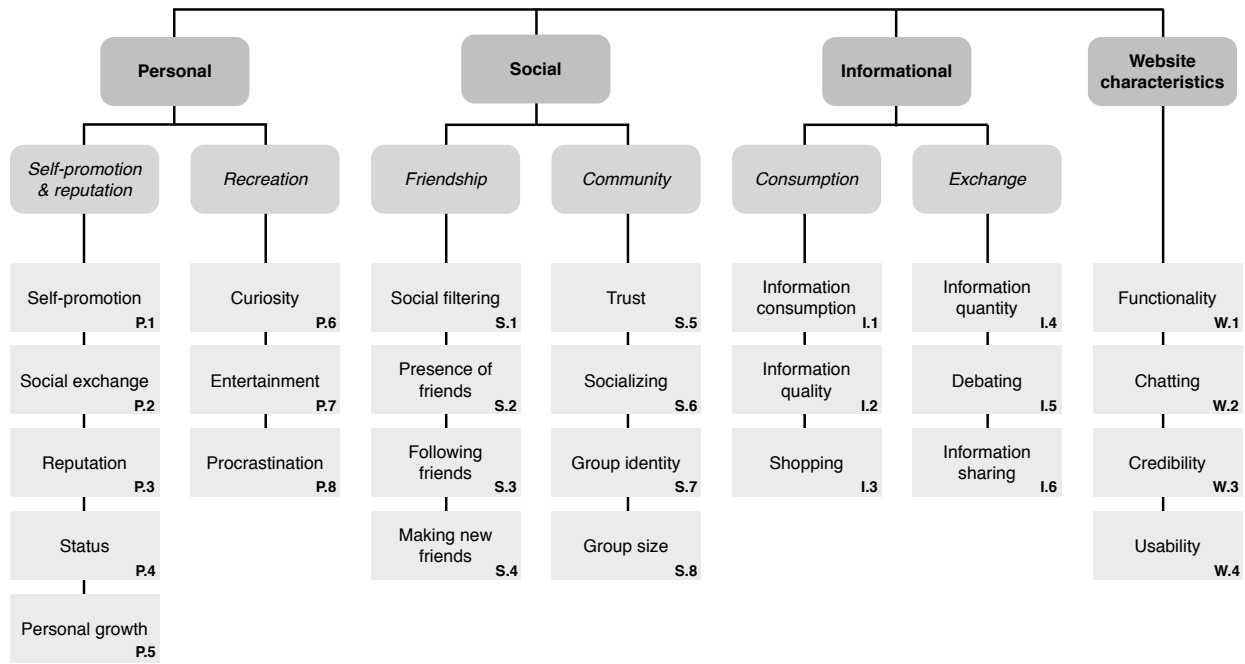


Figure 1: Framework of 26 motivational factors for social news site usage, organized into seven mid-level and four top-level categories.

Social exchange (P.2) is also known as *reciprocity* and describes the act of rewarding positive actions with other positive actions in response. In the context of social news sites, this could cover commenting and up-voting stories of other users, with similar actions in return. Users that do not believe their actions will be reciprocated are less motivated to keep participating on the social news site (Halavais, 2009; Sadlon et al., 2009; Rafaeli & Ariel, 2008).

Reputation (P.3) represent the positive recognition and credibility users can gain through their actions and participation. The standard way of measuring reputation on Reddit is through *karma*. Users can earn so-called ‘karma points’ by posting highly rated links as well as highly rated comments on Reddit. By earning karma points, Reddit users gain more reputation and such achievement systems have been shown to be powerful incentives for participation (Clary et al., 1998; Jakobsson, 2011; Joyce & Kraut, 2006; Kietzmann et al., 2011; Lampel & Bhalla, 2007; Lerman, 2007; Lerman & Galstyan, 2008; Maslow, 1954; Rafaeli & Ariel, 2008; Ridings & Gefen, 2004).

Status (P.4) is commonly defined as a user’s “relative standing in a group when this standing is based on prestige, honor, or deference” (Lampel & Bhalla, 2007, p. 437). In online communities, status is different from reputation in that reputation is typically used as *input* for gaining higher status (Lampel & Bhalla, 2007; Jakobsson, 2011; Maslow, 1954). For instance, more karma points could lead to greater prestige on Reddit or being asked to become a moderator of a specific subreddit.

Personal growth (P.5) represents the different incentives related to personal development and growth, such as building self-esteem, altruism, making a positive ideological impact, or the opportunity to learn new skills (Arguello et al., 2006; Clary et al., 1998; Kietzmann et al., 2011; Maslow, 1954; Nov, 2007; Rafaeli & Ariel, 2008; Ren & Kraut, in press; Su et al., 2011).

4.1.2 Recreation

Curiosity (P.6) represents the desire to learn new things or learn more about interesting topics and is a common incentive for user participation (Kietzmann et al., 2011; Jakobsson, 2011; Brandtzæg & Heim, 2009; Su et al., 2011).

Entertainment (P.7) is one of the most commonly mentioned affective and explicit motivations for user participation, both explicitly (for fun) (Jakobsson, 2011; Ridings & Gefen, 2004; Nov, 2007; Brandtzæg & Heim, 2007; Su et al., 2011; Rafaeli & Ariel, 2008) as well as implicitly for *procrastination* (P.8) purposes (Brandtzæg

& Heim, 2009). Procrastination is commonly defined as delaying an intended activity by undertaking another counterproductive activity instead, which is another likely motivation for spending time on social media websites in general.

4.2 Social

4.2.1 Friendship

Another possible motivation for participating on social news sites could be the *social filtering* (S.1) of the news stream that takes place when users collaboratively vote on which stories should make it to the front page (Rafaeli & Ariel, 2008; Kietzmann et al., 2011).

The *presence of friends* (S.2) on the social media website or online community can be another powerful motivating factor and, in extreme cases, people can even be pressured into joining a website or community because most of their friends have as well (Arguello et al., 2006; Brandtzæg & Heim, 2007, 2009; Lerman & Galstyan, 2008; Maslow, 1954; Ren & Kraut, in press; Ridings & Gefen, 2004; Sassenberg, 2002).

Following friends (S.3) on a social media website is another oft-mentioned motivation for participating (Arguello et al., 2006; Brandtzæg & Heim, 2009; Maslow, 1954; Ridings & Gefen, 2004; Sassenberg, 2002). This is likely to be a stronger incentive on sites where following friends is an essential part of the user experience. On social news sites the core activities are reading, posting, commenting, and voting on news articles, but following friends could still be a partial incentive.

In addition keeping track of old friends, *making new friends* (S.4) is another possible motivation for participating more actively on social news sites (Kietzmann et al., 2011; Brandtzæg & Heim, 2009).

4.2.2 Community

Trust (S.5) could be a powerful motivator for active participation in online communities, such as social news sites (Ridings et al., 2002). This could involve trusting that a user's contributions are taken seriously and reacted to with integrity by the community (Halavais, 2009).

Socializing (S.6) is another potential incentive for participating on social news sites (Brandtzæg & Heim, 2009). In the context of social media—and social news sites in particular—socializing can be defined as interacting socially with other users in a community, often with the implicit goal of acquiring, adhering to, and spreading the norms and customs of that community, thereby strengthening the social cohesion of the community.

Group identity (S.7), commonly expressed through the traditions and cultures of the group or community in question, can be another powerful motivator for participation in that group, because of its influence on people's social identities (Arguello et al., 2006; Brown & Capozza, 2006; Rafaeli & Ariel, 2008; Ren & Kraut, in press; Sassenberg, 2002). People who feel a strong sense of belonging with a specific community are more likely to join and stay active in that community.

Group size (S.8) can have both a positive and negative effect on the desire to join a community, such as those present on social news sites. Large communities can make it harder for users to make themselves heard, yet the increased anonymity can be appealing to others. In addition, large groups often experience a rich-get-richer effect that draws in new users (Arguello et al., 2006; Milgram et al., 1969). The reverse can be true for communities that are too small in size. The optimal group size can depend on factors such as the group's topical focus as well as the actions typically undertaken as a community (Oliver & Marwell, 1998).

4.3 Informational

4.3.1 Consumption

Information consumption (I.1) is an essential part of social media, especially social news sites. The consumption of information in the form of news articles and responses to them is therefore likely to be a strong incentive for people to participate on social news sites (Brandtzæg & Heim, 2009; Fogg et al., 2003; Ridings et al., 2002; Ridings & Gefen, 2004).

The *quality of information* (I.2) posted on social news sites in the form of news articles and comments is likely to be an important incentive for participation (Fogg et al., 2003; Rafaeli & Ariel, 2008; Brandtzæg & Heim, 2007).

Online *shopping* (I.3) and locating relevant information to support such transactional information needs has become an important part of the World Wide Web (Hoffman & Novak, 1997). While perhaps not the most important source of information, social media, and social news sites in particular, could nevertheless be used to satisfy such transactional needs.

4.3.2 Exchange

The *information quantity* (I.4) in the form of news articles posted to a social news site could be an important motivational factor (Arguello et al., 2006; Rafaeli & Ariel, 2008).

Similarly, the possibility for *debating* (I.5) the news articles and links posted to a social news site are also likely to motivate users to participate (Brandtzæg & Heim, 2009).

The possibility of conveniently *sharing information* (I.6) with other users of a social news site is another likely motivational factor (Kietzmann et al., 2011; Brandtzæg & Heim, 2009; Ridings et al., 2002; Ridings & Gefen, 2004).

4.4 Website characteristics

The *functionality* (W.1) offered by a website can be an important part of what motivates people to use that website (Fogg et al., 2003; Ridings & Gefen, 2004). Changes to the interface and functionality to Digg, a rival website to Reddit, caused traffic to Digg to drop by 26%⁷, suggesting that the functionality offered by a website has a strong influence on whether or not (people continue to) use it.

Supporting synchronous communication between users of social news sites through *chatting* functionality (W.2) is mentioned often enough to warrant including it as a separate motivation (Brandtzæg & Heim, 2009; Rafaeli & Ariel, 2008).

Credibility (W.3) refers to both the objective and subjective believability of a message, which could be an incentive for participating on Reddit, seeing as exchanging information is an important part of using Reddit (Fogg et al., 2003).

Usability (W.4) refers to the ease of use and learnability of interface and functionality of the social news site. Changes in the interface and functionality of a website—as described above in the case of Digg—tend to have a strong influence on its usability (Brandtzæg & Heim, 2009, 2007; Fogg et al., 2003). We also choose to group the satisfaction of affective needs under usability, such as the intrinsic desire for aesthetics (Rafaeli & Ariel, 2008).

5 Results of Survey Validation

In this section, we present the results of the survey used to validate our framework of motivations for using social news sites. We describe the way our participants typically use Reddit, their attitudes towards the difference motivational factors, and the demographics of our sample.

5.1 Reddit usage

Lurkers are typically defined as people that are more likely to consume information from a website or service than to produce and contribute new content for it, although the exact minimum level of participation varies by website or service (Nonnecke & Preece, 2000).

In the first part of our survey, we asked the participants three questions about their activity level with regard to *posting* new content, *commenting*, and *voting* on existing content. Based on their responses, we assigned our participants to one of three categories of users, depending on the activity type: (1) *active users*, (2), *casual users*, and (3) *lurkers*. Different activities require different levels of effort, so we define these three types differently for the three activity types, based on experience with Reddit and common sense.

⁷According to http://readwrite.com/2010/09/23/digg_redesign_tanks_traffic_down_26, last accessed July 23, 2013.

With regard to *posting* new content, active users post new content more than once a week. Casual users will have posted less than this, but at least once in their time on Reddit, whereas lurkers never post new content. With regard to *commenting*, active users, will comment at least once a day, whereas casual users will comment at least once a month. We expect lurkers to comment less than once a month. *Voting* on Reddit content requires the least effort. Therefore, to be classified as an active user, one would have to vote several times a day. Casual users vote at least once a week, with lurkers voting no more than once a month. Based on these distinctions, Figure 2 shows how our survey participants fall into these different categories.

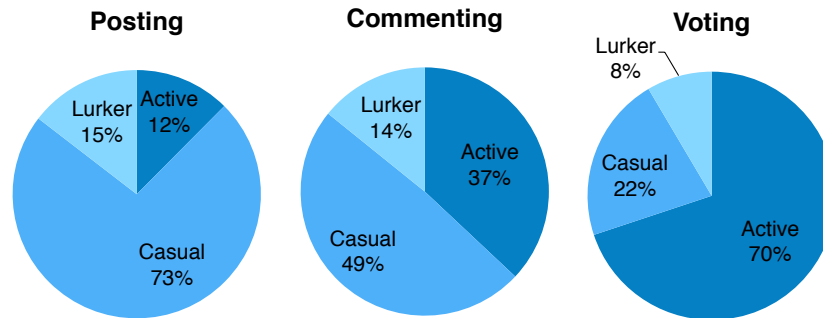


Figure 2: Distribution of activity levels for posting, commenting, and voting by the Reddit users in our survey ($N = 282$).

While the activity level typically depends on the website when defining lurking behavior, it appears that the participants in our survey are more likely to be active or casual users. This means that it might be problematic to generalize our results to the larger population of lurkers on Reddit.

5.2 Motivational factors

Figure 3 show the results of the four parts of our survey corresponding to the four top-level categories **Personal**, **Social**, **Informational**, and **Website characteristics**, with all 26 factors sorted by agreement. The most important motivation for using Reddit for the participants in our survey is entertainment (P.7): 83% of participants strongly agreed with this statement and none disagreed. This is also reflected in comments, such as “*I do it when for fun to take a break from working [sic]*” (id-93) and “*I use reddit because it is fun*” (id-164). The other two recreation-related **Personal** factors, curiosity (P.6) and procrastination (P.8) are also in the top four with a respective combined agreement of 94% and 88%.

Rounding out the top five, all with median scores of 5, are information quantity (I.4) and usability (W.4) with a combined agreement of 88% and 84% respectively. Some telling quotes about information quantity include “*I enjoy the wide range of content, it keeps me entertained for much longer than a site dedicated to a single type of content*” (id-102) and “*It has a wide variety of information which I like.*” (id-93). Quotes such as “*I like how simple it is for a noob like me to use. Seriously, that’s an accomplishment.*” (id-142) and “*It’s simple and clean. That’s a big plus.*” (id-58) demonstrate the importance of website usability.

Below the top five is a group of seven factors that all have more than 50% combined agreement and median scores of 4. These factors mostly come from the **Information** and **Website characteristics** categories. Information consumption (I.1), information quality (I.2), shopping (I.3), and debating (I.5) have a combined agreement between 55% and 75%. Quotes highlighting the importance of the information-related aspects include “*I use Reddit to follow niche news- news about things that are important to me but aren’t important enough to a wide enough audience for the stories to end up in mainstream channels.*” (id-58) and “*With 19 million users (I think) there’s almost no news story that doesn’t have an eyewitness on reddit. The difference between reading what a reporter who showed up after the fact wrote and somebody who can honestly say, “I was there...” is very powerful.*” (id-205). These suggest that the quality of first-hand reports combined with the specialization that subreddits offer are important reasons for using Reddit. This is also reflected in the importance of credibility (W.3) of the information and the website itself. Website functionality (W.1), related to usability, garnered a combined agreement of 54% and a combined disagreement of 19%. Participants typically mention Reddit’s many customization options as one of the great benefits of using it.

Personal motivations related to self-promotion and reputation do not appear to be important to the

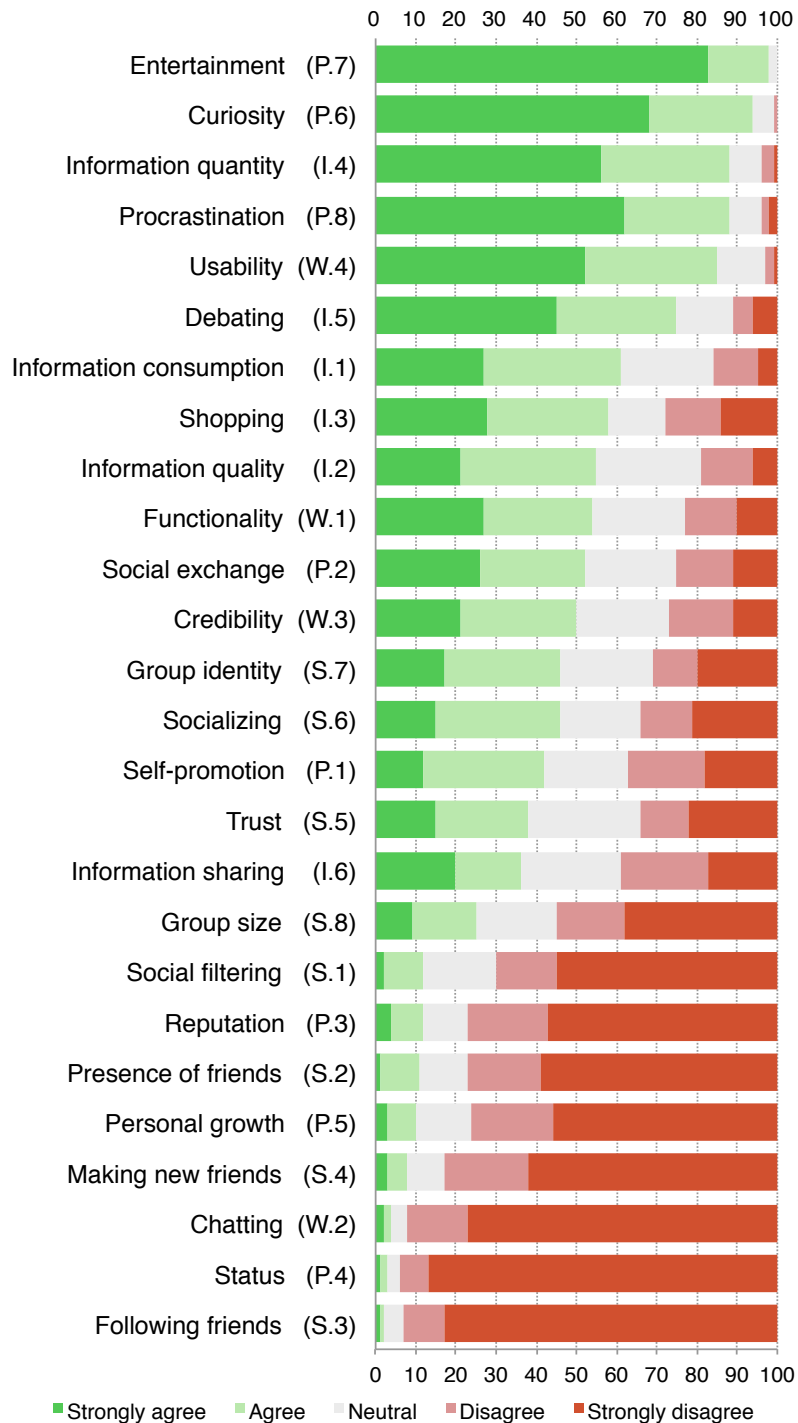


Figure 3: Overview of motivational factors' importance for all Reddit users in our survey ($N = 282$). Factors are sorted by combined agreement, i.e., 'Strongly agree' and 'Agree' combined.

Reddit users who participated in our survey. With the exception of social exchange (P.2) at 52% combined agreement, the other four factors—self-promotion (P.1), reputation (P.3), status (P.4), and personal growth (P.5)—rarely appear to be a reason for people to use Reddit, with median scores of 1 for three of these factors. No users specifically commented that they used Reddit for reasons related to self-promotion or reputation. In fact, one person specifically stated the opposite: *“I use Reddit when I am avoiding thinking about things which I know need addressing. It’s a terrible coping mechanism and I was a better person five years ago before I ever knew it existed.”* (id-145).

The **Social** aspect of Reddit does not appear to be a strong motivation for users to participate, with friendship-related factors being valued even less than community-related factors. Median scores for the community-related factors, such as trust (S.5), socializing (S.6), group identity (S.7), and group size (S.8), range from 2 to 3, suggesting that the Reddit users that participated in our survey is split over how important the community is to them. This is also reflected in their comments: some users reflect positively on this aspect, such as *“Reddit fills holes that my real-life friends can’t fill because they’re not interested in all the same things I am.”* (id-58); *“I use it to find people who are more like me, my own community, if you will.”* (id-184); and *“Several subreddits do provide shared interests and views and a sense of community between me and my peer users, however, I feel my opinions on certain issues to be at odds with the overall user base of the website.”* (id-139). Others have a negative opinion of interacting with the Reddit community, such as *“I don’t have any social motivations for using Reddit. If anything my experience with Reddit regarding social interaction has been negative.”* (id-145) and *“Reddit is not welcoming, it does not feel like a group. It is very judgmental and I rarely feel comfortable.”* (id-157).

Friendship-related factors are among the lowest-rated motivational factors with median scores of 1 for social filtering (S.1), presence of friends (S.2), following friends (S.3), and making new friends (S.4). The highest-rated of these factors, social filtering, only has a combined agreement of 12%. The comments left by the participants also reflect this: *“I like Reddit specifically because nobody I know uses it.”* (id-142) and *“If my friends became active Redditors I would become less inclined to use the site.”* (id-260). The only factor with a median score of 1 that was not **Personal** or **Social** was chatting (W.2), which is also the website characteristic that is most related to social behavior. In sum, the results of our survey suggest that the social aspects of social news sites are not important for the majority of Reddit users.

5.3 Demographics

In the final part of the survey, we asked our participants some basic demographics questions, such as country of origin, age, and gender. This part of the survey was answered by 279 out of 282 participants. Figure 4 shows the main results.

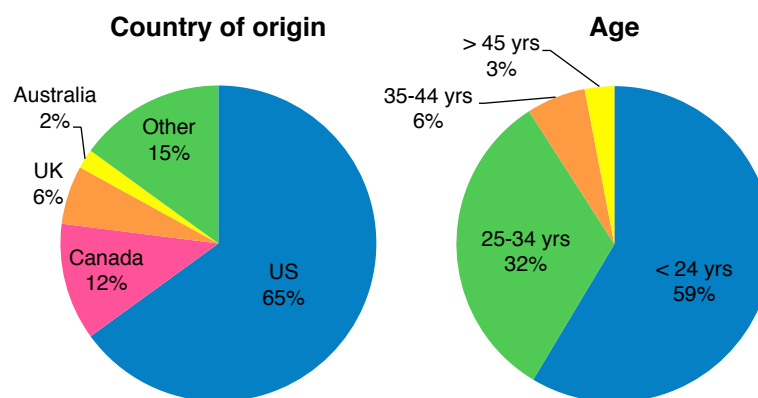


Figure 4: Demographics (country of origin and age) of the Reddit users in our survey ($N = 279$).

Use of Reddit is predominantly an Anglo-Saxon affair, with 85% of Reddit users originating from the US, Canada, the UK, and Australia. Our distribution is similar the one found in a 2011 survey of 32,756 Reddit users⁸, where 64.3% reported hailing from the US, 9.1% from Canada, 6.1% from the UK, and 3.3% from Australia.

⁸Survey data available at <http://blog.reddit.com/2011/09/who-in-world-is-reddit-results-are-in.html>, last accessed August 13, 2013.

Reddit usage appears to be dominated by users under 35 with around 91% of all users. The average age in our survey is 24.7 years. The age distribution shown in Figure 4 matches the 2011 survey results closely: the 2011 survey reported 55.5% of all users to be under 24, 35.4% between 25 and 34 years old, 6.9% between 35 and 44, and 2.1% over 45.

Gender was distributed evenly with 49% female and 51% male respondents in our survey. The 2011 survey shows a more skewed distribution at 18.9% female and 81.1% male. This suggests that, in general, our smaller sample seems to be representative of the larger Reddit population.

6 Discussion & Conclusions

In this paper we explored what motivates the usage of social news sites and Reddit in particular. Based on a comprehensive literature review, we constructed a tiered framework of 26 motivational factors for social news sites, followed by an empirical evaluation using a survey of 282 Reddit users. Based on our results, there is one obvious question to ask: how *social* are social news sites? Despite the ‘social’ moniker, it would appear from our results that, unlike other social media (Brandtzæg & Heim, 2007, 2009), the social aspect of websites such as Reddit is not a powerful incentive for their continued use. The Reddit users in our survey consistently stated that the social aspect, especially in terms of friendship relations, was not important to them when using Reddit.

In contrast, the recreational value of the information posted to Reddit as well as its quality, along with the powerful possibilities for customization appear to be the most powerful incentives for using Reddit. This suggests that, for their users, the main difference between traditional online newspapers and social news sites is not so much the social aspect, but rather that they can influence the placement and reception of news stories in their niche subreddits of interest through voting and commenting. While we cannot preclude any possible interaction effects between the different motivational and specific social features, we believe that social news sites would therefore be better off focusing on these aspects rather than injecting their websites with more social features.

It should be noted that the participants in our survey are less likely to exhibit lurking behavior based on their responses. This might make it problematic to generalize our results to the larger population of lurkers on Reddit. However, we expect our many of our conclusions about Reddit usage to hold for lurkers as well. If lurkers by definition have the lowest level of interaction with Reddit, then they are even less likely to be motivated by social factors or incentives related to self-promotion and reputation. Similarly, we have no reason to assume that reasons such as entertainment and the quality of information do not apply to lurkers. We therefore expect our results to apply to the lurking Reddit users as well, with some minor deviations.

6.1 Future work

In future work, we wish to triangulate our findings by performing a content analysis of the wealth of comments we received in our survey, as well as crawl interaction data on Reddit of the 86 users who consented to this, to determine whether we can see the same pattern in their interaction with Reddit and its users.

In addition, we wish to take a closer look at the different activity levels of the users in our survey to determine whether different levels of activity—for instance, redditors vs. lurkers—correspond to different motivational preferences. This also holds for demographical features: are there differences between gender or age groups in what motivates them to use Reddit?

References

- Arguello, J., Butler, B. S., Joyce, E., Kraut, R., Ling, K. S., Rosé, C., & Wang, X. (2006). Talk to Me: Foundations for Successful Individual-Group Interactions in Online Communities. In *CHI '06: Proceedings of the SIGCHI Conference on Human Factors in Computing Systems* (pp. 959–968).
- Brandtzæg, P. B., & Heim, J. (2007). User Loyalty and Online Communities: Why Members of Online Communities are not Faithful. In *INTETAIN '08: Proceedings of the 2nd International Conference on INtelligent TEchnologies for interactive enterTAINment* (pp. 1–10).
- Brandtzæg, P. B., & Heim, J. (2009). Why People Use Social Networking Sites. In *Proceedings of the 3rd International Conference on Online Communities and Social Computing* (pp. 143–152). Berlin, Heidelberg: Springer-Verlag.

- Brown, R., & Capozza, D. (2006). *Social Identities: Motivational, Emotional and Cultural Influences*. Psychology Press.
- Clary, E. G., Snyder, M., Ridge, R. D., Copeland, J., Stukas, A. A., Haugen, J., & Miene, P. (1998). Understanding and Assessing the Motivations of Volunteers: A Functional Approach. *Journal of Personality and Social Psychology*, 74(6), 1516–1530.
- Duggan, M., & Smith, A. (2013, July). *6% of Online Adults are Reddit Users* (Tech. Rep.). Pew Internet & American Life Project. (<http://pewinternet.org/Reports/2013/reddit.aspx>, accessed on July 20, 2013)
- Fogg, B. J., Soohoo, C., Danielson, D. R., Marable, L., Stanford, J., & Tauber, E. R. (2003). How Do Users Evaluate the Credibility of Web Sites?: A Study with over 2,500 Participants. In *Proceedings of the 2003 Conference on Designing for User Experiences* (pp. 1–15). New York, NY, USA: ACM.
- Halavais, A. (2009). Do Dugg Diggers Digg Diligently? *Information, Communication & Society*, 12(3), 444–459.
- Hoffman, D. L., & Novak, T. P. (1997). A New Marketing Paradigm for Electronic Commerce. *The Information Society*, 13(1), 43–54.
- Jakobsson, M. (2011). The Achievement Machine: Understanding Xbox 360 Achievements in Gaming Practices. *Game Studies*, 11(1).
- Joyce, E., & Kraut, R. E. (2006). Predicting Continued Participation in Newsgroups. *Journal of Computer Mediated Communication*, 11(3).
- Kaplan, A. M., & Haenlein, M. (2010). Users of the World, Unite! The Challenges and Opportunities of Social Media. *Business Horizons*, 53(1), 59–68.
- Kietzmann, J. H., Hermkens, K., McCarthy, I. P., & Silvestre, B. S. (2011). Social Media? Get Serious! Understanding the Functional Building Blocks of Social Media. *Business Horizons*, 54(3), 241–251.
- Lampel, J., & Bhalla, A. (2007). The Role of Status Seeking in Online Communities: Giving the Gift of Experience. *Journal of Computer-Mediated Communication*, 12(2), 434–455.
- Lerman, K. (2007, November). User Participation in Social Media: Digg Study. In *IEEE/WIC/ACM International Conferences on Web Intelligence and Intelligent Agent Technology Workshops* (pp. 255–258). IEEE.
- Lerman, K., & Galstyan, A. (2008). Analysis of Social Voting Patterns on Digg. In *Proceedings of the First Workshop on Online Social Networks* (pp. 7–12). New York, NY, USA: ACM.
- Lerman, K., Ghosh, R., & Surachawala, T. (2012). Social Contagion: An Empirical Study of Information Spread on Digg and Twitter Follower Graphs. *arXiv preprint arXiv:1202.3162*.
- Maslow, A. (1954). *Motivation and Personality*. New York, NY, USA: Harper.
- Milgram, S., Bickman, L., & Berkowitz, L. (1969). Note on the Drawing Power of Crowds of Different Sizes. *Journal of Personality and Social Psychology*, 13(2), 79–82.
- Nonnecke, B., & Preece, J. (2000). Lurker Demographics: Counting the Silent. In *CHI '00: Proceedings of the SIGCHI Conference on Human Factors in Computing Systems* (pp. 73–80). New York, NY, USA: ACM.
- Nov, O. (2007). What Motivates Wikipedians? *Communications of the ACM*, 50(11), 60–64.
- Oliver, P. E., & Marwell, G. (1998). The Paradox of Group Size in Collective Action: A Theory of the Critical Mass. *American Sociological Review*, 53, 1–8.
- Rafaeli, S., & Ariel, Y. (2008). Online Motivational Factors: Incentives for Participation and Contribution in Wikipedia. In (pp. 243–267). Cambridge, UK: Cambridge University Press.
- Ren, Y., & Kraut, R. E. (in press). A Simulation for Designing Online Community: Member Motivation, Contribution, and Discussion Moderation. *Human Computer Interaction*.
- Ridings, C. M., & Gefen, D. (2004). Virtual Community Attraction: Why People hang out Online. *Journal of Computer-Mediated Communication*, 10(1).
- Ridings, C. M., Gefen, D., & Arinze, B. (2002). Some Antecedents and Effects of Trust in Virtual Communities. *Journal of Strategic Information Systems*, 11, 271–295.
- Sadlon, E., Sakamoto, Y., Ma, J., Barrett, S., & Nickerson, J. V. (2009). The Ecology of Digg: Niches and Reciprocity in a Social Network Landscape. In *CHI Workshop on Social Mediating Technologies: Developing the Research Agenda*.
- Sassenberg, K. (2002). Common Bond and Common Identity Groups on the Internet: Attachment and Normative Behavior in On-Topic and Off-Topic Chats. *Group Dynamics*, 6(1), 27–37.
- Su, Y., Howard, H. C., & Borry, P. (2011). Users' Motivations to Purchase Direct-to-Consumer Genome-wide Testing: An Exploratory Study. *Journal of Community Genetics*, 3, 135–146.
- Weller, S. C., & Romney, A. K. (1988). *Systematic Data Collection*. SAGE Publications.

Table of Figures

Figure 1	Framework of 26 motivational factors for social news site usage, organized into seven mid-level and four top-level categories.	6
Figure 2	Distribution of activity levels for posting, commenting, and voting by the Reddit users in our survey ($N = 282$).	9
Figure 3	Overview of motivational factors' importance for all Reddit users in our survey ($N = 282$). Factors are sorted by combined agreement, i.e., 'Strongly agree' and 'Agree' combined.	10
Figure 4	Demographics (country of origin and age) of the Reddit users in our survey ($N = 279$).	11